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Armina E. Matthews 43,780  
Name of Attorney/Agent Registration No.  
Signature of Attorney or Agent

P&G Case 8382CL\$

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the application of :  
Jean-Philippe Marie Autran et al. : Confirmation No.  
Serial No. : Group Art Unit  
Filed June 20, 2003 : Examiner

For Biodegradable Polyhydroxyalkanoate Copolymers Having Improved Crystallization Properties

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

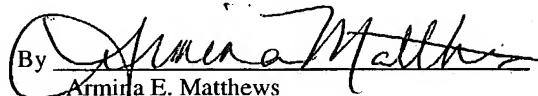
Pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, record is being made below in a Form PTO/SB08 of documents which the Patent Office may wish to consider in connection with examination of the above-identified patent application. It is respectfully requested that the cited documents be carefully considered by the Examiner and made of record in this case. As provided in §1.97(g), no representation is made or intended that a thorough art search was made. As provided in 37 C.F.R. §1.97(h), this Information Disclosure Statement does not constitute an admission of any kind, and specifically is not an admission that the documents listed on attached form PTO/SB08 are, or are considered to be, material to the patentability of the above-identified patent application, as defined in 37 C.F.R. §1.56(b).

1. ☒ 37 C.F.R. §1.97 (b)(1) - U.S. Direct (within 3-months of filing a regular application or converted provisional)

This information disclosure statement, submitted under 37 C.F.R. §1.97 (b)(1), is being filed within three months of the filing date of a national application. Therefore, no fee is believed to be due.

☒ (2) Copies of the cited documents are enclosed.

Respectfully submitted,

By   
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Date: June 20, 2003

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PTO/SB08A/B (04-03)

Approved for use through 04/30/2003. OMB 0651-0031

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<p>Substitute for form 1449A/PTO</p> <p><b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b></p> <p>(use as many sheets as necessary)</p> <p>SHEET 1 of 2</p>	<b>COMPLETE IF KNOWN</b>	
	Application Number	
	Confirmation Number	
	Filing Date	June 20, 2003
	First Named Inventor	Autran et al.
	Group Art Unit	
	Examiner Name	
Attorney Docket Number	8382CL\$	

### U. S. PATENT DOCUMENTS

EXAMINER INITIALS*	Cite No. <sup>1</sup>	DOCUMENT NUMBER Number - Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	1	US-5,693,389 A	12/2/1997	Liggat	Entire document
	2	US-5,498,692 A	3/12/1996	Noda	Entire document
	3	US-4,393,167	7/12/1983	Holmes et al.	
	4	US-4,880,592	11/14/1989	Martini et al.	
	5	US-5,292,860	3/8/1994	Shiotani et al.	
	6	US-4,876,331	10/24/1989	Doi	
	7	US-5,536,564	7/16/1996	Noda	
	8	US- 5,602,227	2/11/1997	Noda	
	9	US-5,685,756	11/11/1997	Noda	
	10	US-5,061,743	10/29/1991	Herring et al.	
	11	US-5,281,649	1/25/1994	Organ et al.	
	12	US-5,516,565	5/14/1996	Matsumoto	
	13	US-5,231,148	7/27/1993	Kleinke et al.	
	14	US-5,550,173	8/27/1996	Hammond et al.	
	15	US-4,537,738	8/27/1985	Holmes	
	16	US-5,578,382	11/26/1996	Waddington	
	17	US-5,138,029 (equivalent to EP 466 050)	8/11/1992	Nishioka et al..	
	18	US-5,624,249 (equivalent to WO 94/27049)	4/29/1997	Rohlfing	

### FOREIGN PATENT DOCUMENTS

EXAMINER INITIALS*	Cite No. <sup>1</sup>	FOREIGN PATENT DOCUMENT Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
	19	WO 02/28969 A	4/11/2002	Procter & Gamble	Entire document	
	20	EP 440 165 A2 (abstract only provided)	8/7/1991	Showa Denko KK		
	21	GB 1,139,528	1/8/1969	Binsbergen		
	22	JP 63 172 762 (abstract only provided)	7/16/1988	Mitsubishi Rayon KK		
	23	WO 96/09402	3/28/1996	Zeneca Limited		
	24	WO 94/17121	8/4/1994	Zeneca Limited		
	25	WO 94/28047	12/8/1994	Zeneca Limited		
	26	WO 94/27048	11/24/1994	Disogyori Szivatiyugyar KFT		

## NON PATENT LITERATURE DOCUMENTS

EXAMINER INITIALS*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>6</sup>
✓	27	Organ, B., <u>Phase separation in a blend of poly(hydroxybutyrate) with poly(hydroxybutyrate-co-valerate)</u> , Polymer, Vol. 34, No. 3, 1993, pp. 459-467	
✓	28	Wthey, H., <u>The effect of seeding on the crystallization of poly(hydroxybutyrate) and co-poly(hydroxybutyrate-co-valerate)</u> , Polymer, Vol. 40, 1999, pp. 5147-5152	
✓	29	Mater, J., <u>Nucleation behavior of poly-3-hydroxybutyrate</u> , Sci. 19, p. 3826, (1984) c	
✓	30	Mater, J., Sci. 27, p. 3239 (1992) <sup>5</sup>	
✓	31	Hobbs, et al., <u>The effect of water on the crystallization of thin films of poly(hydroxybutyrate)</u> , Polymer (1997) 38, #15, pp. 3879-3883	
✓	32	Marchessault et al., <u>Biorefinery polymers in search of applications</u> , Makromol. Chem., Makromol. Symp. 19, p. 235-254 (1988)	
✓	33	Horowitz et al., <u>Phase separation within artificial granules from a blend of polyhydroxybutyrate and polyhydroxyoctanoate: biological implications</u> , Polymer (1994) 35, , #23, pp. 5079-5083	
✓	34	deKoning et al., <u>Crystallization phenomena in bacterial poly[(R)-3-hydroxybutyrate]: 2. Embrittlement and rejuvenation</u> , Polymer (1993) 34, #19, pp. 4089-4094	
	35	deKoning et al., <u>Crystallization phenomena in bacterial poly[(R)-3-hydroxybutyrate]: 3. Toughening via texture changes</u> , Polymer (1994) 35, # 21 pp. 4598-4605	
	36	Biddlestone et al., <u>The Physical Ageing of Amorphous Poly(hydroxybutyrate)</u> , Polymer International 39, (1996) pp. 221-229	
EXAMINER		DATE CONSIDERED	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with M.P.E.P. 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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